

**REMARKS**

Claims 1-11 and 59-61 are all of the claims pending in the application. However, in the Office Action, the Examiner has indicated that claims 8-11 and 59-61 are the only claims pending. The Examiner is requested to note that claims 1-7 have not been canceled, only withdrawn from consideration, and should therefore be marked as pending. Further, Applicants requested in the Response to the Restriction Requirement dated 10/25/02 that claims 1-7 be rejoined if claims 8-11 are allowed.

After entry of the amendment, claims 1-8, 10-11, and 60-61 will be pending.

Please cancel claim 9 and claim 59.

Claims 8, 10, and 60-61 have been amended to indicate the hand of the inventor by replacing the term "mutant" with "isolated."

Claim 8 has been amended to clarify that which the Applicants regard as their invention by adding the phrase "wherein said microorganism is a mutant strain of a microorganism belonging to the genus *Rhodococcus*."

Claims 10, 60, and 61 were amended to correct their dependency.

Claim 10 was amended to use proper claim language.

No new matter has been added. Entry of the Amendment is respectfully requested.

**I. Rejection of Claims Under 35 U.S.C. § 101**

At paragraph 3 of the Office Action, claims 8-11 and 59-61 have been rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

The Examiner explains that the claims do not distinguish over naturally-occurring microorganisms, and states that the claims should be amended to indicate the hand of the inventor.

In response, Applicants have amended the claims to indicate the hand of the inventor. Specifically the Applicants have replaced the word "mutant" in claims 8, 10, and 60-61 with the term "isolated." Claims 9 and 59 have been canceled. Thus, the claims as amended indicate the hand of man and distinguish over naturally-occurring microorganisms.

Regarding claim 11, Applicants assert that, since original claim 11 is drawn to a particular strain of a *Rhodococcus* species isolated by Applicants, original claim 11 distinguishes over naturally-occurring microorganisms.

In view of these amendments, Applicants assert that the claimed subject matter is statutory, and therefore respectfully request reconsideration and withdrawal of this rejection.

## **II. Rejection of Claims Under 35 U.S.C. § 112, first paragraph**

At paragraph 5 of the Office Action, claims 8-11 and 59-61 are rejected under 35 U.S.C. § 112, first paragraph.

The Examiner states that the specification only provides a single representative species of all of the possible mutant microorganisms encompassed by the claims, i.e., those microorganisms which convert a cyano group into a carboxyl group, and that are defective or reduced in converting a cyano group into an amide group.

In response, Applicants have amended claim 8 to recite a mutant strain of a microorganism belonging to the genus *Rhodococcus*. Applicants assert that in light of the specification and amended claim 8, a skilled artisan would recognize that Applicants were in possession of the invention. The penicillin screening method described in the specification (pages 21, 1st paragraph, and 36, 1st paragraph) allows one skilled in the art to concentrate *Rhodococcus* species defective or reduced in growing with benzamide as the sole carbon/nitrogen source. Then, Example 1 (page 36, 1<sup>st</sup> paragraph, through page 37), allows one skilled in the art to screen the *Rhodococcus* with reduced growth in benzamide for reduced accumulation of a carboxylic amide after reaction with, for example, isophthalonitrile. An example of such a *Rhodococcus* is described in Table 1, page 38, of the specification. Therefore, one skilled in the art would recognize that Applicant's invention is any *Rhodococcus* species that can be isolated by, for example, the penicillin screening method, and that shows reduced accumulation of a carboxylic amide after reaction with a nitrile, as claimed. Since, in light of the amendment to claim 8 and the specification, one skilled in the art would recognize that Applicants had possession of there invention at the time the application was filed, Applicants respectfully request that this rejection be withdrawn.

### III. Rejection Under 35 U.S.C. § 102(a)

At paragraph 7 of the Office Action, claims 8 and 9 are rejected under 35 U.S.C. § 102(a) as being anticipated by Kato et al., *J. Mol. Catal. B:Enzy.* 6:249-256 (1999).

The Examiner states that Kato *et al.* teaches a *Rhodococcus* sp. strain YH-3 that contains an inactivated nitrile hydratase (which converts a cyano group into an amide group) and, in the absence of facts to the contrary, inherently has an active nitrilase (which converts a cyano group into a carboxyl group). Thus, the Examiner concludes that the teachings of the references anticipate the claimed invention.

In response, Applicants assert that the acetone-dried and heat-treated cells in Kato *et al.* contain neither the activity of converting a cyano group into a carboxyl group (nitrilase activity), or a fully active nitrile hydratase that converts a cyano group into an amide group. As shown in Kato *et al.* Figure 2, synthesized 3-cyanopyridine was not degraded in either acetone-dried cells or heat-treated cells of *Rhodococcus* sp. strain YH-3 once the yield reached maximum (the period of 120-180 min.). Therefore, the acetone-dried cells and heat-treated cells can have neither an active nitrile hydratase or an active nitrilase, since both degrade 3-cyanopyradine.

Accordingly, the *Rhodococcus* sp. strain YH3 of Kato *et al.* is not an isolated microorganism having the activity of converting a cyano group into a carboxyl group and being defective or reduced in the activity of converting a cyano group into an amide group, wherein the microorganism is a mutant strain of a microorganism belonging to the genus *Rhodococcus*, as recited in claim 8. Claim 9 has been canceled.

In view of these points, Applicants assert that Kato *et al.* does not teach each element of the claimed invention, and therefore respectfully request reconsideration and withdrawal of this rejection.

Amendment Under 37 C.F.R. § 1.116  
U.S. Appln. No. 09/869,142

Attorney Docket: Q64574

#### IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

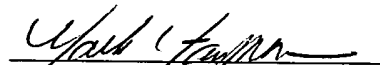
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**23373**

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